

AMENDMENTS TO THE CLAIMS

Claims 1-17 (Cancelled)

18. (New) A process for the preparation of an olefin copolymer comprising:

(a) providing a catalyst system comprising a metallocene catalyst component characterized by the formula:



wherein:

Cp comprises a cyclopentadienyl ring; Flu comprises a fluorenyl ring; R'' comprises a structural bridge imparting stereorigidity to the component; each R is the same or different and is an organic group; m is an integer of from 1-4; each R' is the same or different and is an organic group; n is an integer of from 0-8; M is a metal atom from Group IVB of the Periodic Table or is vanadium; and each Q is a hydrocarbon having from 1-20 carbon atoms or is a halogen;

(b) contacting said catalyst system with at least two olefins under polymerization conditions to copolymerize said olefins to produce a random copolymer in which the monomers of said olefin are distributed relatively evenly throughout the length of each polymer molecule of said copolymer;

(c) recovering said copolymer from said reaction zone.

19. (New) The process of claim 18 wherein at least one group R is positioned on the cyclopentadienyl ring at a location distal to the bridge R''.

20. (New) The process of claim 18 wherein at least one group R comprises a bulky group of the formula ZR^*_3 wherein Z is an atom from group IVA of the Period Table and each

R* is the same or different and is a hydrogen or a hydrocarbyl group having from 1-20 carbon atoms.

21. (New) The process of claim 20 wherein at least one additional group R comprises a group of the formula YR#₃ wherein Y is an atom from group IVA of the Periodic Table, and each R# is the same or different and is a hydrogen or a hydrocarbyl group having from 1-7 carbon atoms.

22. (New) The process of claim 21 wherein the cyclopentadienyl ring comprises a substituent ZR*₃ distal to the bridge R" and a substituent YR#₃ proximal to the bridge and non-vicinal to ZR*₃.

23. (New) The process of claim 18 wherein the fluorenyl group is substituted with at least one substituent at the 3 or 6 position, or at the 2 or 7 position.

24. (New) The process of claim 23 wherein said fluorenyl group is substituted with a first substituent at the 3 or 6 position and with a second substituent at the 2 or 7 position.

25. (New) The process of claim 23 wherein said fluorenyl group is substituted with substituents at positions 3 and 6 or at positions 2 and 7.

26. (New) The process of claim 21 wherein ZR*₃ is selected from the group consisting C(CH₃)₃, C(CH₃)₂Ph, CPh₃, and Si(CH₃)₃.

27. (New) The process of claim 26 wherein YR#₃ comprises CH₃.

28. (New) The process of claim 18 wherein R" comprises a silyl radical or a hydrocarbyl radical having at least one carbon atom to form the bridge.

29. **(New)** The process of claim 28 wherein M is Ti, Zr or Hf.
30. **(New)** The process of claim 29 wherein Q is Cl or methyl.
31. **(New)** The process of claim 18 wherein one of said olefins is ethylene.
32. **(New)** The process of claim 32 wherein another of said olefins is propylene.
33. **(New)** The process of claim 32 wherein said copolymer is an ethylene/propylene copolymer having a melting temperature within the range of 100-110° C.
34. **(New)** The process of claim 33 wherein said ethylene/propylene copolymer has a melting temperature within the range of 103-107° C.
35. **(New)** The process of claim 18 wherein at least one group R is positioned on the cyclopentadienyl ring at a location distal to the bridge R" and at least another group is positioned on the cyclopentadienyl ring at a location proximal to the bridge and non-vicinal to the at least one group R.
36. **(New)** The process of claim 35 wherein said at least one group R which is positioned distal to the bridge is bulkier than the at least another group R which is proximal to the bridge.
37. **(New)** The process of claim 36 wherein the fluorenyl group is substituted with at least one substituent at the 3 or 6 position, or at the 2 or 7 position.